In the Claims:

Please replace the previously filed claims with the following amended claims:

1. (Currently Amended) A system for analyzing the performance of a network comprising:

at least one **data collection agent** (DCA) located on a network and which collects performance data including a first plurality of measurements of a single network parameter and at least a first set of measurements including at least a single measurement of the single network parameter, each **measurement** of the first plurality of measurements taken at a different time;

a processing module interconnected with the DCA and which calculates at least a first variance statistic and a second variance statistic, the first variance statistic being a variance statistic of the first plurality of measurements and the second variance statistic being a variance statistic of the first set of measurements; and

a comparison module interconnected with the processing module and which compares the first variance statistic with at least the second variance statistic to determine if a predetermined relationship exists between the first variance statistic and the second variance statistic.

2. (Currently Amended) The system of claim 1 wherein each **measurement** of the first plurality of measurements is taken on a periodic basis over a first period of time and each of the first set of measurements is taken over a second period of time.

3. (Original) The system of claim 2 wherein the second period of time is included within the first period of time.

4. (Currently Amended) The system of claim 2 further including a data storage module interconnected to the **at least one** DCA and the processing module for storing at least the first plurality of measurements and the **at least a** first set of measurements and wherein the second period of time is not included within the first period of time.

Claims 5-8. **(Canceled).**

9. (Original) The system of claim 1 including a user display for displaying at least the first variance statistic and the second variance statistic.

10. (Currently Amended) A method of analyzing the performance of a network including:

collecting **performance data including** ~~**at**~~ a first plurality of measurements of a single network parameter, each **measurement** of the first plurality of measurements taken at a different time;

collecting at least a first set of measurements including at least a single measurement of the single network parameter;

calculating a first variance statistic associated with the first plurality of measurements;

calculating at least a second variance statistic associated with the first set of measurements; and

comparing the first variance statistic with at least the second variance statistic to determine if a predetermined relationship exists therebetween.

11. (Currently Amended) The method of claim 10 wherein:

the **[[step of]]** collecting **[[a]]** **of the** first plurality of measurements includes taking each **measurement** of the first plurality of measurements on a periodic basis over a first period of time; and

the **[[step of]]** collecting **[[a]]** **of the** first set of measurements includes taking each **measurement** of the **at least a** first set of measurements over a second period of time.

12. (Currently Amended) The method of claim 10 wherein **[[the]]** **a** second period of time is included within **[[the]]** **a** first period of time.

13. (Original) The method of claim 10 further including storing at least the first plurality of measurements and the first set of measurements in a data storage facility.

14. (Currently Amended) The method of claim 13 wherein **[[the]]** **a** second period of time is not included within **[[the]]** **a** first period of time.

Claims 15-17 (Canceled).

18. (Currently Amended) The method of claim 10 wherein:

the **[[step of]]** calculating **[[a]]** **of the** first variance statistic includes calculating an average value equal to the average value of the first plurality of measurements; and

the **[[step of]]** calculating of the second variance statistic includes calculating an average value equal to the average value of the first set of measurements.

19. (Original) The method of claim 10 further including displaying at least the first variance statistic, the second variance statistic and the results of the comparison therebetween on a user display.

20. (Currently Amended) A method of analyzing the performance of a network including:

collecting **[[at]]** **performance data including** a first plurality of measurements of a single network parameter, each of the first plurality of measurements taken at a different time;

collecting at least a first set of measurements including at least a single measurement of the single network parameter;

calculating a first variance statistic associated with the first plurality of measurements;

calculating at least a second variance statistic associated with the first set of measurements; and

displaying at least the first variance statistic and the second variance statistic on a user screen display.

21. (Currently Amended) A system for analyzing the performance of a network comprising:

at least one **data collection agent** (DCA) located on a network and which collects performance data including a first plurality of measurements of a single

network parameter and at least a first set of measurements including at least a single measurement of the single network parameter, each **measurement** of the first plurality of measurements taken at a different time;

a processing module interconnected with the DCA and which calculates at least a first variance statistic and a second variance statistic, the first variance statistic being a variance statistic of the first plurality of measurements and the second variance statistic being a variance statistic of the first set of measurements; and

a user display for displaying at least the first variance statistic and the second variance statistic.